

Date: Sat, 27 Nov 93 04:30:25 PST
From: Ham-Ant Mailing List and Newsgroup <ham-ant@ucsd.edu>
Errors-To: Ham-Ant-Errors@UCSD.Edu
Reply-To: Ham-Ant@UCSD.Edu
Precedence: Bulk
Subject: Ham-Ant Digest V93 #125
To: Ham-Ant

Ham-Ant Digest Sat, 27 Nov 93 Volume 93 : Issue 125

Today's Topics:

5/8 wave 2m base antennas
50 ohm coax to 75 ohm coax transformer
Advice?Mount R-5 vert
Match-All Tuner
Rugged 2 meter antenna.
SKYWIRE ANTENNA
The Best UHF/VHF TV antenna
Vertical Tri-Bander

Send Replies or notes for publication to: <Ham-Ant@UCSD.Edu>
Send subscription requests to: <Ham-Ant-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Ant Digest are available (by FTP only) from UCSD.Edu in directory "mailarchives/ham-ant".

We trust that readers are intelligent enough to realize that all text herein consists of personal comments and does not represent the official policies or positions of any party. Your mileage may vary. So there.

Date: 24 Nov 1993 14:17:51 GMT
From: munnari.oz.au!hp9000.csc.cuhk.hk!saimiri.primate.wisc.edu!sdd.hp.com!
cs.utexas.edu!swrinde!sgiblab!sgigate.sgi.com!olivea!inews.intel.com!ilx018-
bb.intel.com!ilx049!dbraun@network.ucsd.
Subject: 5/8 wave 2m base antennas
To: ham-ant@ucsd.edu

In article <2cresARRL Handbook, p. 23-273\$cuk@organpipe.uug.arizona.edu>, hlester@helium.gas.uug.arizona.edu (howard n lester) writes:

|> ... I already have installed a
|> 1/4 wave ground plane that I made for \$1.79 (an S0-239), and it works well,
|> but I want something better - something that'll squish the radiation pattern
|> down. Don't talk to me about J's, thank you. Just answer the question. .:-)

I'll talk about J's anyway. Last week, I ran a NEC2 simulation of a 2M J-pole (the one from the ARRL Handbook, page 23-27) and the basic 2M ground plane (a 1/4 wave radiator and four 1/4 wave radials, bent down about 45 degrees.) I got ALMOST EXACTLY the same gain in the horizontal direction for each antenna. Actually, this makes sense if you remember that a ground-plane antenna looks just like a 1/2 wave dipole, where the other half of the dipole exists because of the ground reflection. Now I really thinkl that the J-pole is overrated, especially considering how the feed-point impedance is so unpredictable.

--

Doug Braun Intel Israel, Ltd. M/S: IDC1-41
Tel: 011-972-4-655069 dbraun@inside.intel.com

Date: Wed, 24 Nov 1993 13:39:56 GMT
From: ucsnews!sol.ctr.columbia.edu!emory!kd4nc!ke4zv!gary@network.ucsd.edu
Subject: 50 ohm coax to 75 ohm coax transformer
To: ham-ant@ucsd.edu

In article <2cu4qf\$t7h@apakabar.cc.columbia.edu> mac20@namaste.cc.columbia.edu (Michael A Cecere) writes:
>oh yeah, at 900MHz. would this be terribly complicated to homebrew?
>
>I want to go from f-type connector 75-ohm "cable" coax to, get this,
>9913 N-type coax. (the section of 75 ohm is just to match to the transceiver,
>the 9913 has to run over 100')
>
>How about if i can't lay my hands on a (900MHz) SWR meter?
>
>(And i have to do it with one hand behind my back and blindfolded :-))

You need a 1/4 wave matching section of 61.2 ohm coax. You can make a piece of airline following the Handbook formulas and using copper pipe and brass hobby tubing, or you can use 62 ohm flexible coax. Don't forget the velocity factor if you do.

If you don't have test equipment, it's a bit dicey, you have to trust the formulas and your construction technique to be close enough. What I'd do is just readjust the antenna feed to match 75 ohms and use CATV hardline all the way.

Gary

--

Gary Coffman KE4ZV | Where my job's going, | gatech!wa4mei!ke4zv!gary
Destructive Testing Systems | I don't know. It might | uunet!rsiatl!ke4zv!gary
534 Shannon Way | wind up in Mexico. | emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244 | -NAFTA Blues |

Date: Wed, 24 Nov 1993 20:42:25 GMT
From: ucsnews!sol.ctr.columbia.edu!howland.reston.ans.net!darwin.sura.net!
newsserver.jvnc.net!yale.edu!news.yale.edu!revco@network.ucsd.edu
Subject: Advice?Mount R-5 vert
To: ham-ant@ucsd.edu

I could use some advice/help in mounting a cushcraft R-5 vertical to
the side of a 3rd floor Dormer window. The manual says use
1 7/8 inch tubing. I can't seem to find tubing this wide.
Any ideas for a tubing and bracket solution and which fasteners to
use to attach this to the wood siding of the house???

Thanks

Jim Revkin, KA1QJ

revco@revco.med.yale.edu

Date: Tue, 23 Nov 1993 12:59:28 GMT
From: mdisea!mothost!lmpsbbbs!news@uunet.uu.net
Subject: Match-All Tuner
To: ham-ant@ucsd.edu

In article 28277@ke4zv.atl.ga.us, gary@ke4zv.atl.ga.us (Gary Coffman) writes:
}In article <931122144415.21808384@engvax.picker.com>
CUNNINGHAM_A@engvax.picker.com writes:
}> Anyone know how good the Match-All tuner from Terramar Systems
}> works. Lots of claims for a lightweight, \$99 box that goes
}> between your longwire/dipole/vertical and the coax. Claims it
}> automatically matches VSWR to 1.5:1 on all HF bands... And the
}> thing appears to be passive (no external power ?) to boot.
}> Anyone know how it works, principles of operation --- they say
}> it works like the commercial product "Maxcom" ...
}
}{The Maxcon is a resistor, a dummy load. If the Terramar uses the same
}approach, you'll be wasting most of your power heating the resistor.
}{This is not quite a scam since there are times when a wide instantaneous
}bandwidth is worth the power loss, such as in octaves wide spread spectrum.
}{But it's certainly not a good way to handle typical amateur antenna matching

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{chores.  
}  
{  
{Gary  
}--  
{Gary Coffman KE4ZV | Where my job's going, | gatech!wa4mei!ke4zv!gary  
{Destructive Testing Systems | I don't know. It might | uunet!rsiatl!ke4zv!gary  
{534 Shannon Way | wind up in Mexico. | emory!kd4nc!ke4zv!gary  
{Lawrenceville, GA 30244 | -NAFTA Blues |
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It too is a dummy load!! Don't waste your money on it!
Bruce, WB4YUC

Date: 24 Nov 1993 08:13:17 CST
From: ftpbox!mothost!schbbs!maccvm.corp.mot.com!CSLE87@uunet.uu.net
Subject: Rugged 2 meter antenna.
To: ham-ant@ucsd.edu

I've not seen any antenna that is simpler than the quarter-wave whip. However, it does require a ground plane. If it's on a mag-mount, the ground plane must be ferrous metal, too, and therefore not desireable for canoeing. AS makes an end-fed unit ASP-861 that does not need a ground plane and offers >2 dB gain over the whip. It's approx 44" long and needs a 3/8" hole. Works wonders!! Good luck and thanks for being involved in amateur radio support of public service events. We all should do our part where and when we can to improve our PR. 73-WA8NVW

----- Original Article -----

Newsgroups: rec.radio.amateur.antenna
From: n8nxf@cyberspace.org (Klaus)
Subject: Rugged 2 meter antenna.
Date: Tue, 23 Nov 1993 17:50:59 GMT
Lines: 21

I want to build a simple, rugged and efficient antenna to mount on my bicycles and kayak. I often help out with triathelons, mountain bike events, etc. I don't like sitting in a car, preferring to be mobile on the course. I need an antenna that can be whacked by trees and still perform well in hilly terrain. It seems to me that a J would be the best choice.

Most of the J (J pole?) antenna articles I've come across show the antenna connected directly to 50 ohm coax. One article showed a 4 to 1 coaxial balun connected to the antenna. The claim was that doing so would reduce the effects nearby objects would have on SWR. Is this true? Is a J a balanced or unbalanced antenna? Should I consider some other antenna or antenna matching technique? The

match used on the Ringo Ranger looks rather interesting and simple.

At the moment I am considering cutting down a 1/4 wave stainless CB antenna for my J antenna with rugged spacers to maintain the distance between the 3/4 and 1/4 wave elements. That may then be mounted on a spring mount... Weight is important too.

Date: 26 Nov 93 15:46:46 GMT

From: ogicse!emory!gatech!concert!mms!dave.hockaday@network.ucsd.edu
Subject: SKYWIRE ANTENNA
To: ham-ant@ucsd.edu

NE> I have a 40 meter full wave loop that loads on 40, 20
NE>and 15, and is without any doubt the best wire antenna I've
NE>ever used- I worked Mayotte Island on 20 at midnite with it
NE>just a few months ago (barefoot, too...) I have read about
NE>wormwarmers, but never tried one. On 160, though I think I'll
NE>do a little experimenting...
NE>N4och

Hi Laurence! How does your skywire compare to a dipole up at a moderate altitude?? How does it perform, on say 40 meters, locally (within a hundred or so miles) compared to a dipole? I am curious about the radion angle. I have a friend that has one up on 75 and has says that he uses his dipole locally and the loop for dx...he figures that the loop has a much lower angle of radiation. 73 de WB4IUY

Date: Sat, 20 Nov 1993 21:36:40

From: dog.ee.lbl.gov!agate!howland.reston.ans.net!math.ohio-state.edu!
news2.uunet.ca!ukma!eng.ufl.edu!usenet.ufl.edu!chris.health.ufl.edu!
chris@network.ucsd.edu
Subject: The Best UHF/VHF TV antenna
To: ham-ant@ucsd.edu

Does anyone have a suggestion for a UHF/VHF TV antenna? Whats the best signal amplifier to use? Is it possible to receive TV signals clear of static from 300 miles?

Date: 24 Nov 93 21:17:52 GMT

From: ucsnews!sol.ctr.columbia.edu!howland.reston.ans.net!darwin.sura.net!sgiblab!
pacbell.com!amdahl!JUTS!arl00@network.ucsd.edu
Subject: Vertical Tri-Bander

To: ham-ant@ucsd.edu

I'm on the verge of replacing my wide-band discone (which hasn't been a bad performer) with a 2m/220/440 tribander. After some investigation, I've narrowed things down to either the Diamond X3200A or Comet CX-333, which seem to be quite similar in size (about 10ft) and claimed gain. Any advice on which of the two is preferable? At \$165, the Comet is about \$25 cheaper than the Diamond. Am willing to listen to suggestions for alternatives. Would like to be able to reliably hit repeaters that are 50-60 miles away. 25 miles or so seems to be my current limit. The discone is mounted about 35 feet above ground right now, and that's where I plan to place the vertical. Are my expectations reasonable?

My rig is a Kenwood TM-742A with the 220 module installed (no, I haven't experienced the dreaded S-meter squelch lockup problem). Feed line is 45 feet of 9913.

Would also appreciate advice about triplexers. Any real difference between brands? Looking at both the Comet 324B and Diamond 324 right now. 73s, and thanks in advance.

Arlan
KB8QLV

End of Ham-Ant Digest V93 #125

